

Claims

- [c1] 1. An external protective device for protecting the eyes and the eye lids of a patient against radiation energy, said device comprising:
- a first shield and a second shield, each of which has an inner end and an outer end and is of sufficient size to cover an eye of the patient;
 - each shield being made of a material that can block radiation energy;
 - a nose piece joining the shields together in a spaced apart relationship so as to position the shields over the eyes of the patient, the nose piece being movable from a first position to a second position; and
 - a mounting on each shield for attaching the nose piece to the shield wherein the mounting on the first shield is positioned substantially parallel to the mounting on the second shield so that the nose piece can move from the first position to the second position without altering the position of the shields.
- [c2] 2. The protective device of claim 1 wherein each mounting has a hole for receiving the nose piece, and the hole in the mounting on the first shield is substantially paral-

lel to the hole in the mounting on the second shield.

- [c3] 3. The protective device of claim 2 wherein the mounting is a strip of material with both ends connected to the shield.
- [c4] 4. The protective device of claim 2 wherein the mounting is a post.
- [c5] 5. The protective device of claim 4 wherein an elastic band is combined with the post to retard involuntary movement of the nose piece relative to the post, while still allowing voluntary movement.
- [c6] 6. The protective device of claim 4 wherein a bushing is combined with the hole in the mounting to retard involuntary movement of the nose piece relative to the post, while still allowing voluntary movement.
- [c7] 7. The protective device of claim 4 wherein a set screw is combined with the mounting to retard involuntary movement of the nose piece relative to the post, while still allowing voluntary movement.
- [c8] 8. The protective device of claim 4 wherein the hole is a conical shaped hole to allow the nose piece to move slightly within the mounting.
- [c9] 9. The protective device of claim 4 wherein a plastic plug

is combined with the hole in the mounting to retard involuntary movement of the of the nose piece relative to the post, while still allowing voluntary movement.

[c10] 10. The protective device of claim 1 wherein the mounting comprises a living hinge.

[c11] 11. The protective device of claim 1 wherein the mounting comprises a ball and a socket that together form a ball and socket joint for connecting the nose piece to the shield.

[c12] 12. The protective device of claim 11 wherein the socket is on the shield and the ball is on the nose piece.

[c13] 13. The protective device of claim 11 wherein the ball is on the shield and the socket is on the nose piece.

[c14] 14. The protective device of claim 11 wherein a plastic member is positioned in the socket and engages the ball to provide a better fit of the ball into the socket.

[c15] 15. The protective device of claim 11 wherein the socket is comprised of two pieces that attach around the ball of the ball and socket joint by fastening together.

[c16] 16. The protective device of claim 11 wherein the socket is comprised of two pieces that attach around the ball of the ball and socket joint by screwing together.

- [c17] 17. The protective device of claim 11 wherein multiple balls are provided to allow for adjustability.
- [c18] 18. The protective device of claim 11 wherein multiple sockets are provided to allow for adjustability.
- [c19] 19. The protective device of claim 1 further comprising a headband member that is connected to each shield and adapted to be placed around and behind the patient's head to hold the shields over the patient's eyes.
- [c20] 20. The protective device of claim 19 wherein the headband member is adjustable and removable from the device for separate sterilization.
- [c21] 21. The protective device of claim 19 wherein a ball and a socket joint combines the headband member with each shield.
- [c22] 22. The protective device of claim 21 wherein the ball is on the shield and has a notch adapted for the insertion of an elastic headband member.
- [c23] 23. The protective device of claim 19 wherein the headband member is made of elastic.
- [c24] 24. The protective device of claim 1 wherein the shields are made of stainless steel.

- [c25] 25. The protective device of claim 1 wherein the shields are made of plastic.
- [c26] 26. The protective device of claim 25 wherein the shields are at least partially transparent.
- [c27] 27. The protective device of claim 1 wherein the shields are coated with plastic.
- [c28] 28. The protective device of claim 1 wherein the nose piece is combined directly with the shield.
- [c29] 29. The protective device of claim 1 wherein the nose piece further comprises a telescoping adjustment mechanism.
- [c30] 30. The protective device of claim 4 wherein the nose piece further comprises flanges that limit the travel of the nose piece relative to the mounting.
- [c31] 31. The protective device of claim 1 wherein an elastomeric lip is molded onto the shields so as to provide a precise fit around the patient's eyes.
- [c32] 32. The protective device of claim 1 in which the shields have an outer surface that is non-reflective.
- [c33] 33. The protective device of claim 1 wherein the mounting comprises a hinge joint.

